UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/817,507	04/17/1997	TADAMITSU KISHIMOTO	53466/201	8301

7590 09/10/2002

HAROLD WEGNER
FOLEY & LARDNER
3000 K STREET NW SUITE 500
PO BOX 25696
WASHINGTON, DC 200078696

EXAMINER	
CANELLA, KAREN A	
ART UNIT	PAPER NUMBER
1642	35

DATE MAILED: 09/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
08/817,507	Kishimoto
Examiner	**Art Unit**
Karen Canella	1642

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3 months* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *15 and 24-28* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *15 and 24-28* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Response to Arguments

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

2. Claims 15 and 24-28 are pending and under consideration.

Claim Rejections Maintained

3. The rejection of claims 15 and 24-28 under 35 U.S.C. 103(a) as being unpatentable over Emilie et al (Blood, 1994, Vol. 84, pp. 2472-2479) in view of Sato et al (Cancer Research, 1993, Vol. 53, pp. 851-856) is maintained for reasons of record. Applicant argues that in order to make a case that the prior art methods would inherently encompass the instant methods the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the prior art. Applicant sites Ex parte Levy 17 U.S.P.Q.2d 1461, 1464 (Bd.Pat. App. & Inter. 1990) and states that the examiner has failed to do so. This has been considered but not found persuasive. The M.P.E.P. (2141.02) states "In determining whether the invention as a whole would have been obvious under 35 U.S.C. 103, we must first delineate the invention as a whole. In delineating the invention as a whole, we look not only to the subject matter which is literally recited in the claim in question... but also to those properties of the subject matter which are **inherent in the subject matter and are disclosed in the specification**". Thus the method of treating patients suffering from cachexia caused by interleukin-6 production comprising the administration of a therapeutically effective amount of an antibody to the Il-6 receptor, wherein the therapeutically effective amount blocks signal transduction by Il-6 and inhibits the binding of Il-6 to the Il-6 receptor rendered obvious by the teachings of Emilie et al and Sato et al would necessarily result in the treatment of elevated blood levels of ionized calcium because the specification discloses

that said elevated level of calcium is due to the production of Il-6. The specification does not set forth antibodies to the Il-6 receptor which are different from the prior art antibodies. Thus, it is reasonable to assume that administration of the prior art antibodies would provide a therapeutic effect to counter the observed elevated levels of ionized calcium in the blood as said elevated levels of calcium has been disclosed in the specification to be correlated with elevated Il-6 levels (bridging paragraphs, pages 25 and 26 and figure 15).

Applicant argues that there is no motivation to combine the teachings of Emilie et al and Sato et al as "It is known that a larger amount of Il-6 receptor is present in the blood relative to the amount of Il-6 (pg/ml) level, which means that the amount of antibody to Il-6 necessary to block the Il-6 receptor signal transduction would be much greater than that of the antibody to Il-6" leading one of skill in the art to doubt the efficacy of administering antibodies directed to the Il-6 receptor versus the Il-6 lymphokine. Applicant adds that neither Emilie et al nor Sato et a gives motivation to use an antibody against the Il-6 receptor. This has been considered but not found persuasive. Sato et al teach on page 855, first column, last two lines "The reshaped human PM-1 antibody is expected to be useful as a therapeutic agent in human multiple myeloma". Thus arguments that it would not be expected that humanized PM-1 antibody would have therapeutic efficacy in vivo due to relatively higher serum levels than Il-6 lymphokine are misdirected as the humanized PM-1 antibody was prepared by Sato et al with the intention of treating human pathologies related to elevated levels of Il-6. Applicant further argues that one of skill in the art would expect that a method comprising administration of the anti-Il-6 receptor antibody would result in ADCC/CDC because of the binding of the antibody to the cell surface versus the binding of an antibody to the soluble Il-6 lymphokine. This has been considered bu not found persuasive. The antibody PM-1 taught by Sato et al was humanized to decrease the potential of side effects from ADCC/CDC (page 851, first column, last paragraph).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Canella whose telephone number is (703) 308-8362. The examiner can normally be reached on Monday through Friday from 8:30 am to 6:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa, can be reached on (703) 308-3995. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Karen A. Canella, Ph.D.
Patent Examiner, Group 1642
August 29, 2002

ANTHONY C. CAPUTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600